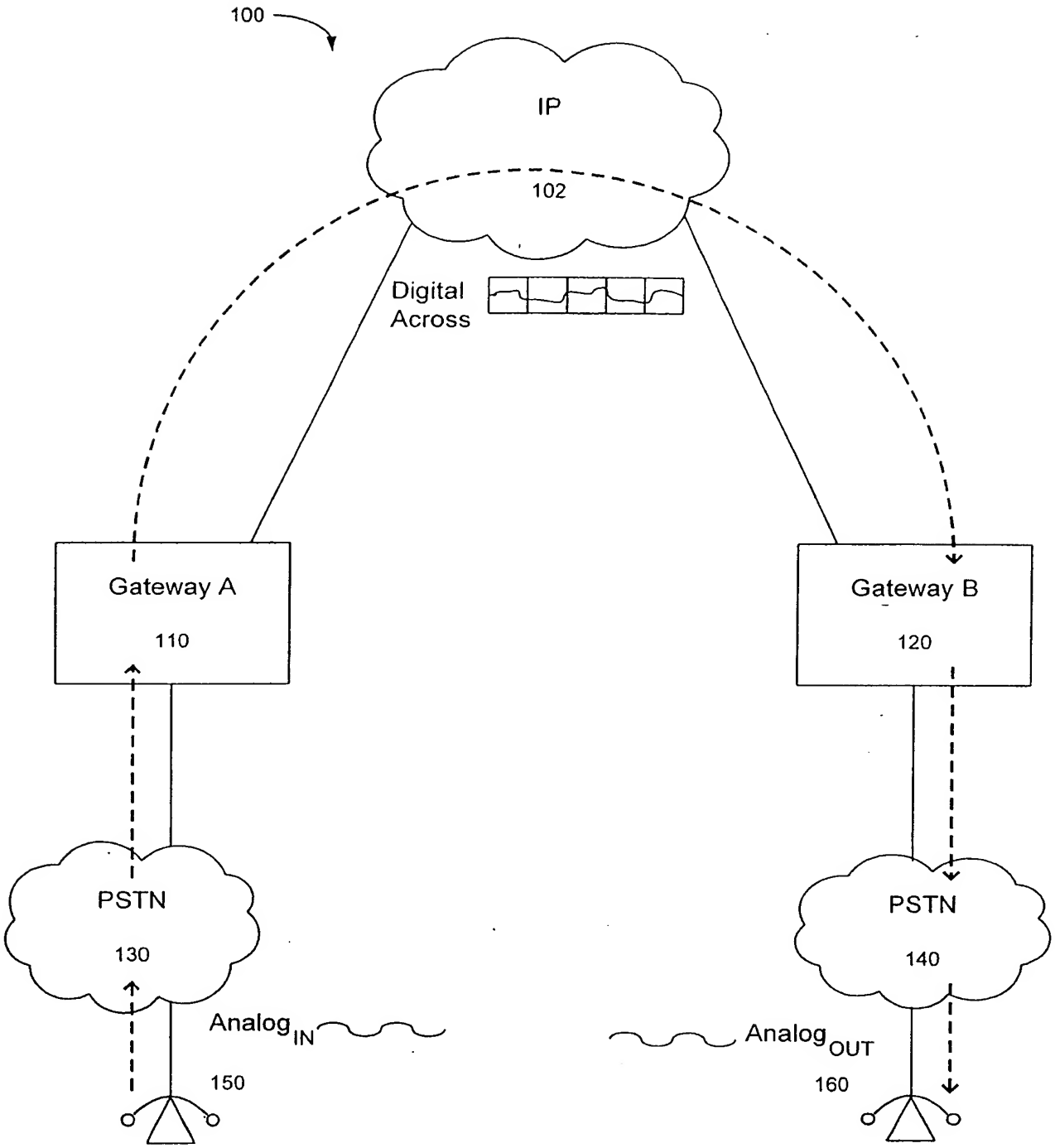


Voice Over Internet
Protocol Architecture

FIG. 1

9907-08.vsd/1

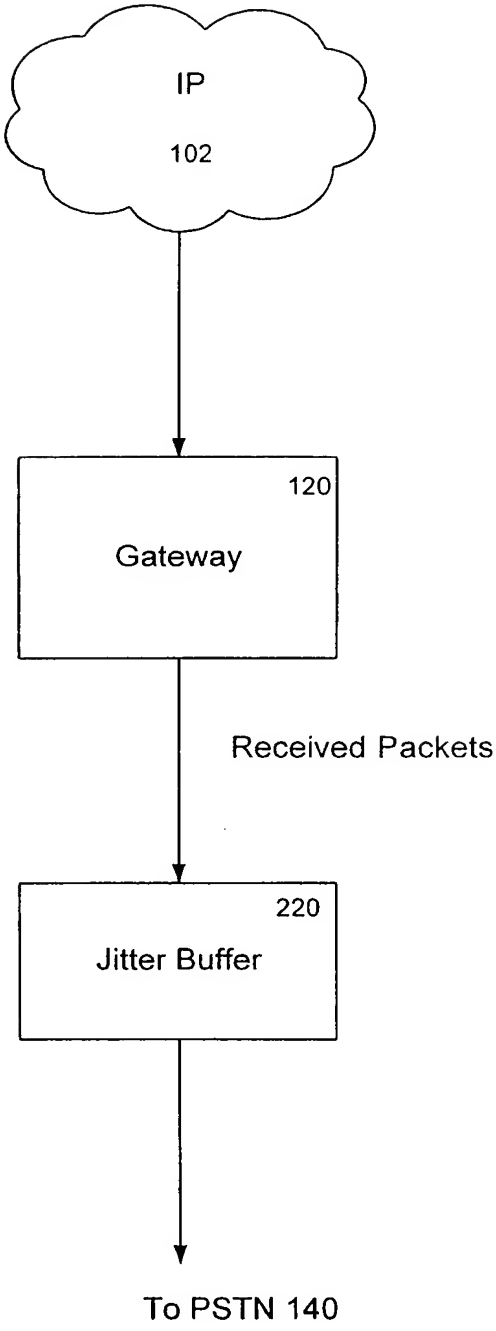
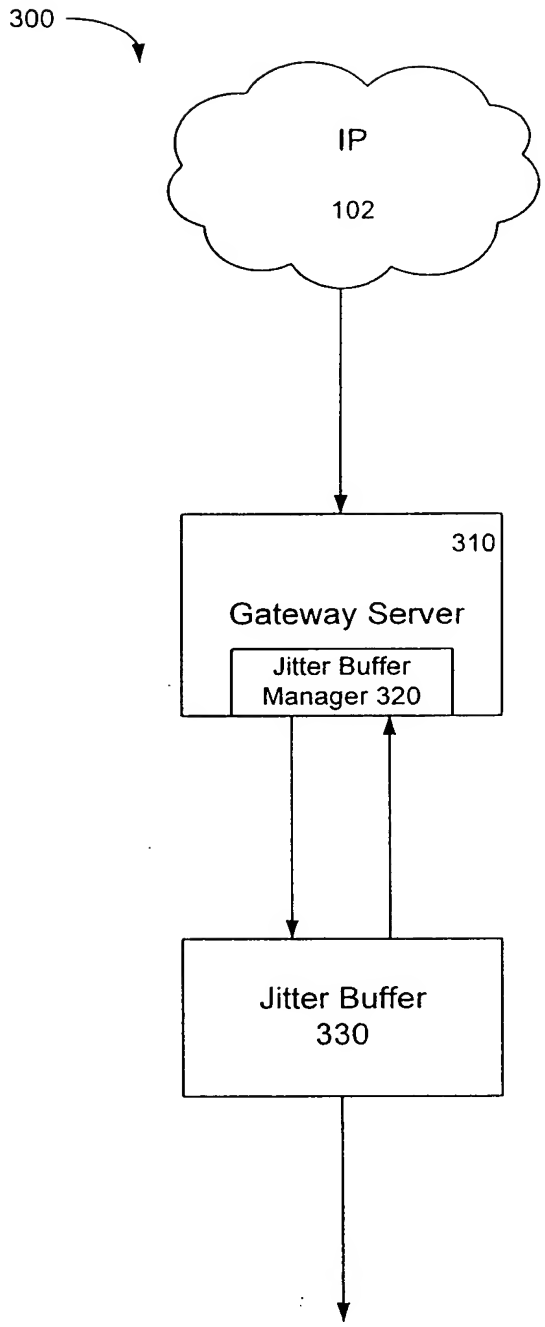

IP
102
120
Gateway
Received Packets
220
Jitter Buffer
To PSTN 140
Jitter Buffering

FIG. 2



Managed Jitter Buffering

FIG. 3

9907-08.vsd/3

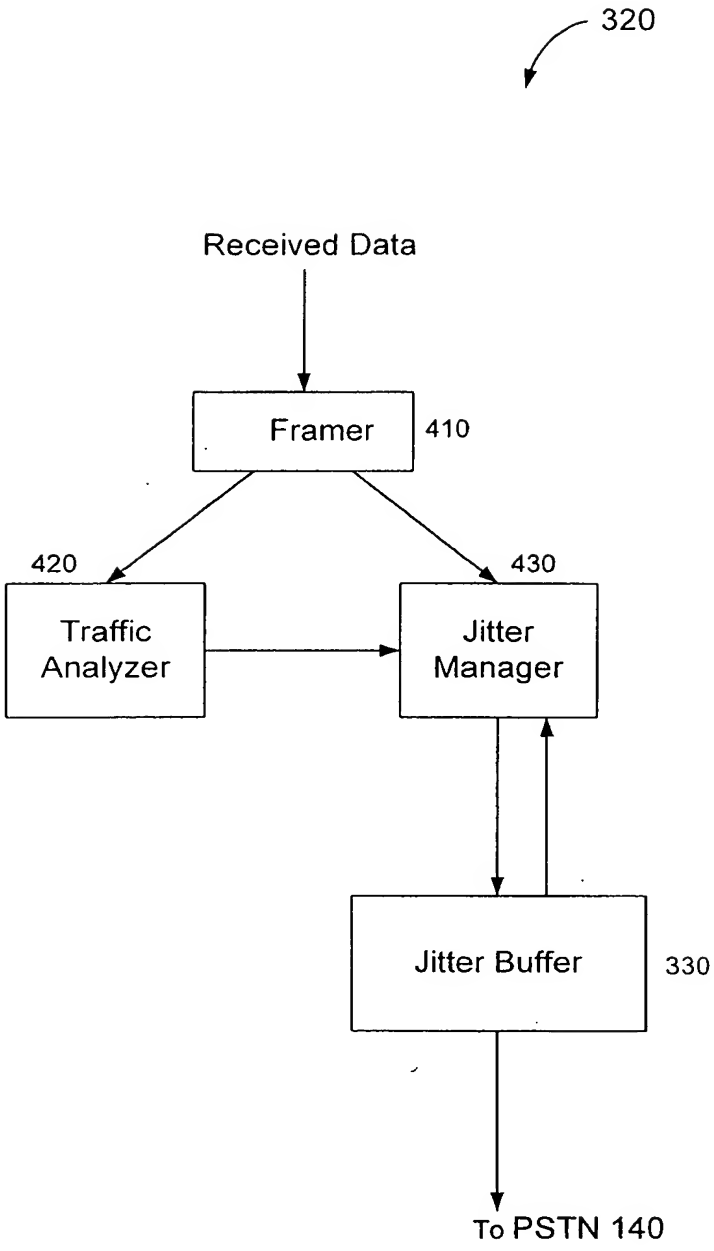

320
Received Data
Framer
410
420
430
Traffic Analyzer
Jitter Manager
Jitter Buffer
330
To PSTN 140

FIG. 4

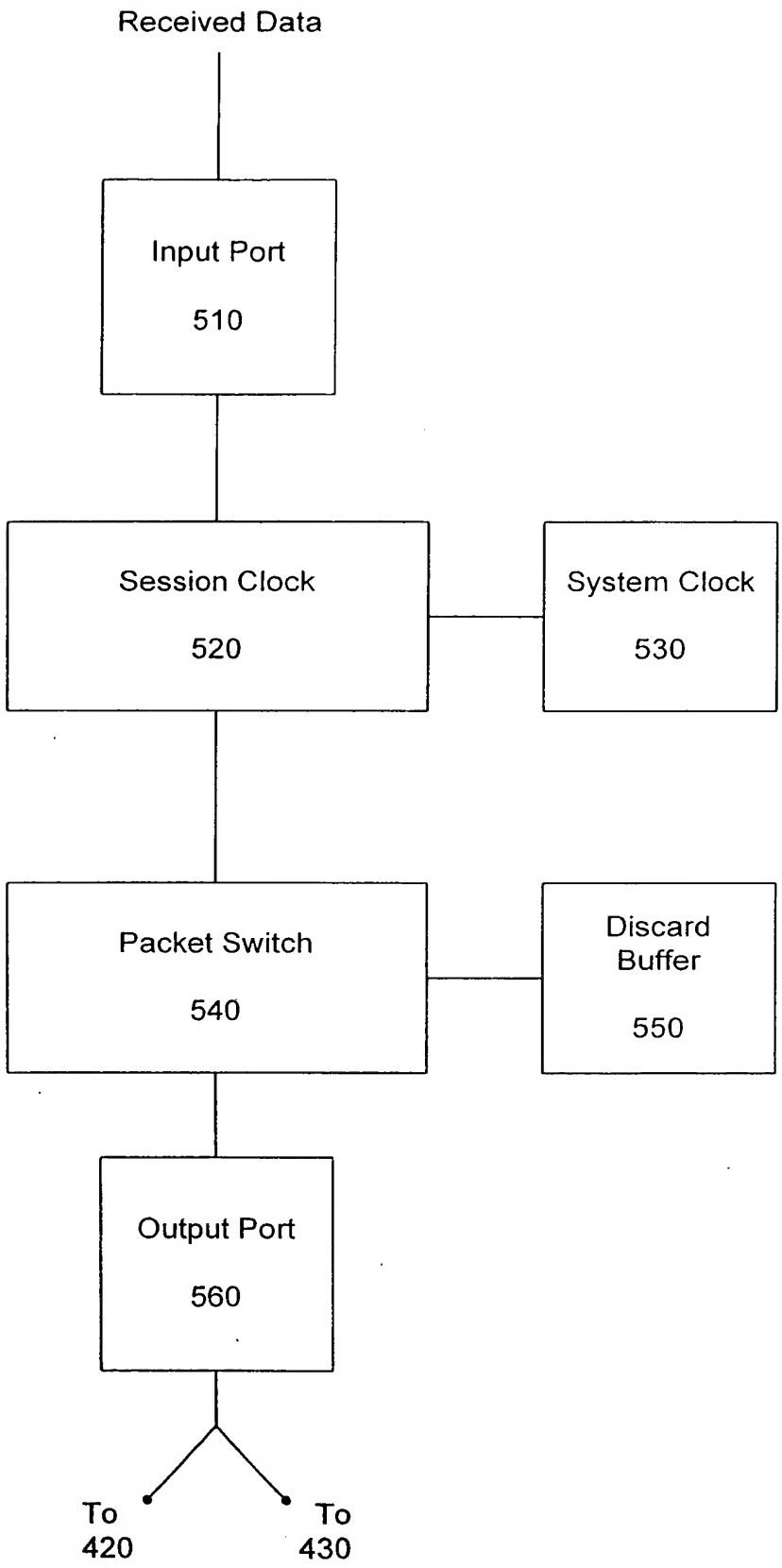


FIG. 5

9907-08.vsd/5

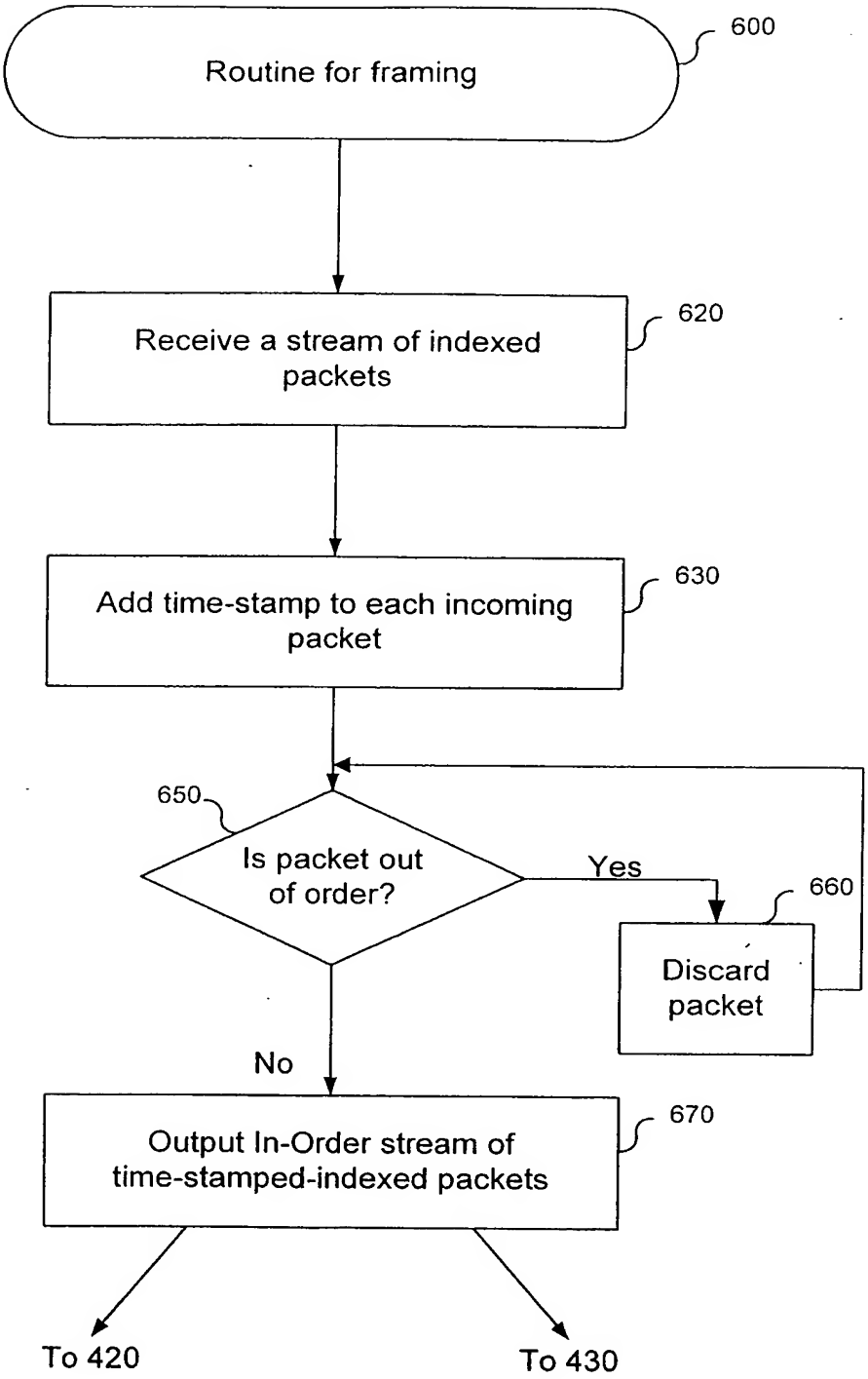


FIG. 6

9907-08.vsd/6

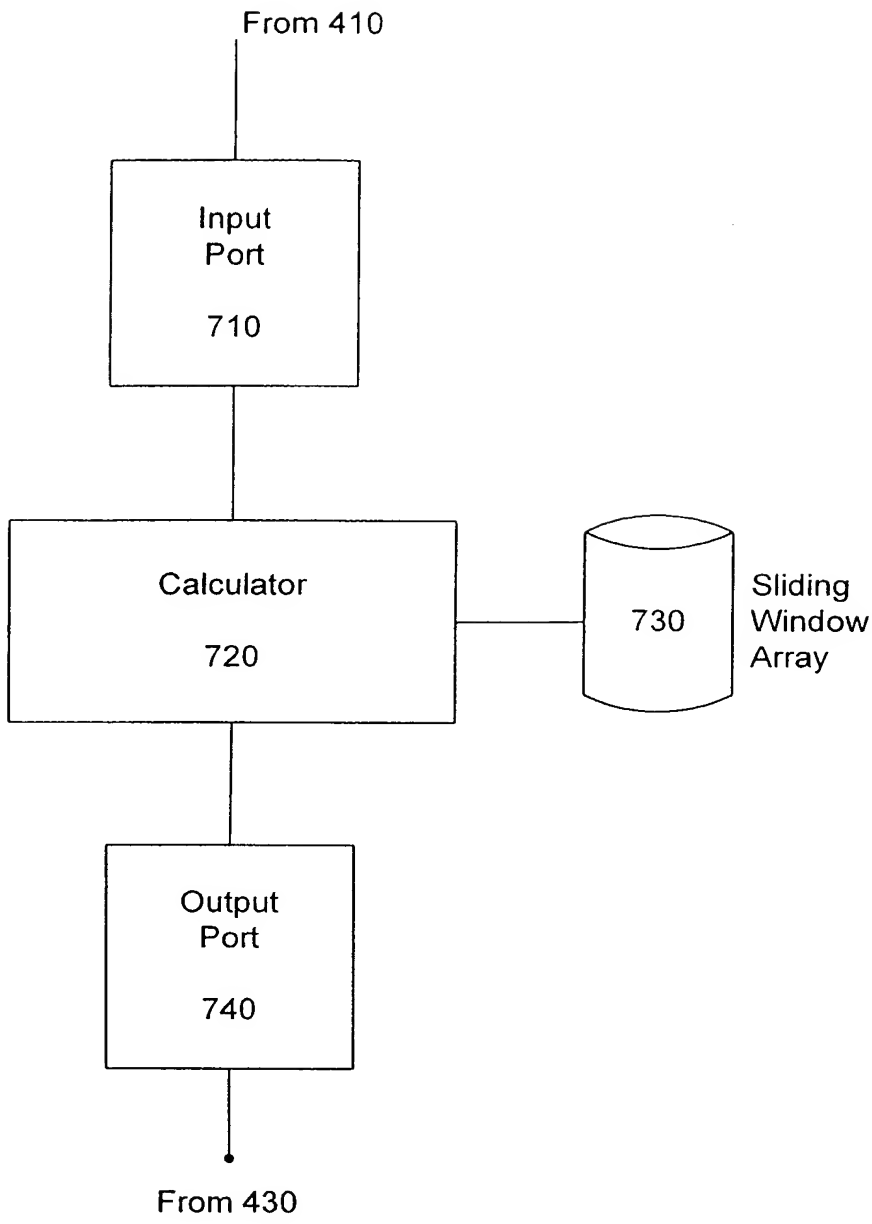

From 410
Input Port 710
Calculator 720
730
Sliding Window Array
Output Port 740
From 430

FIG. 7

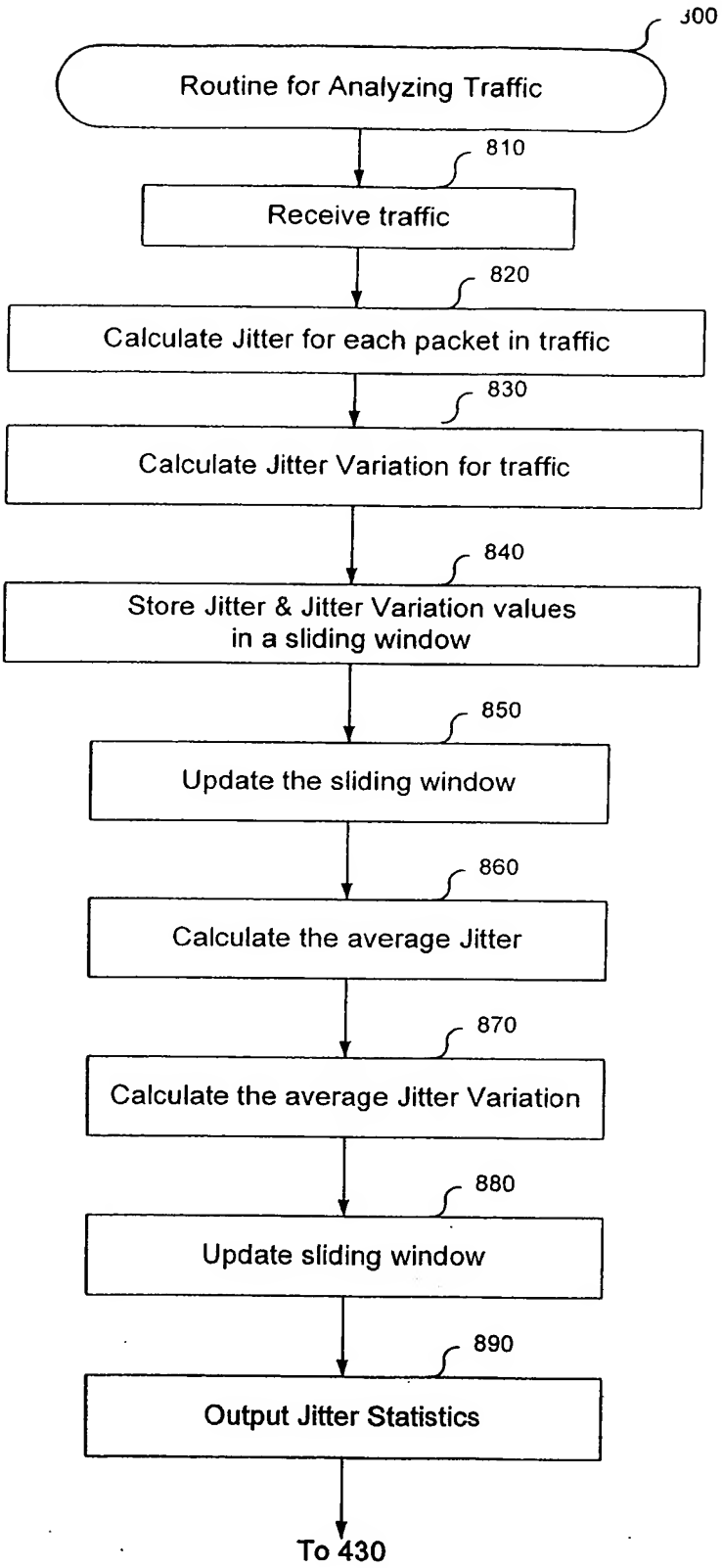


FIG. 8

9907-08.vsd/8

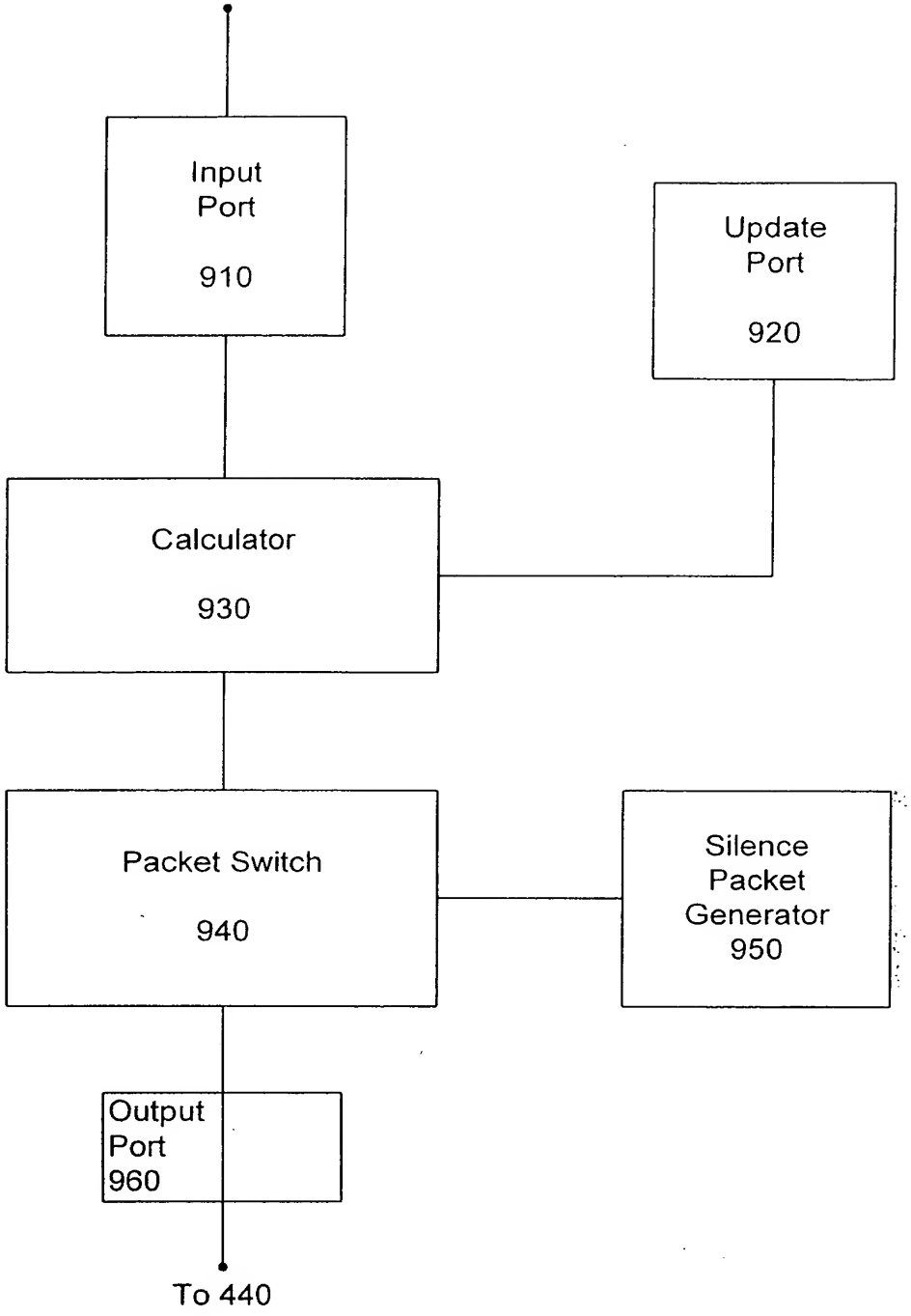

Input
Port
910
Update
Port
920
Calculator
930
Packet Switch
940
Silence
Packet
Generator
950
Output
Port
960
To 440

FIG. 9

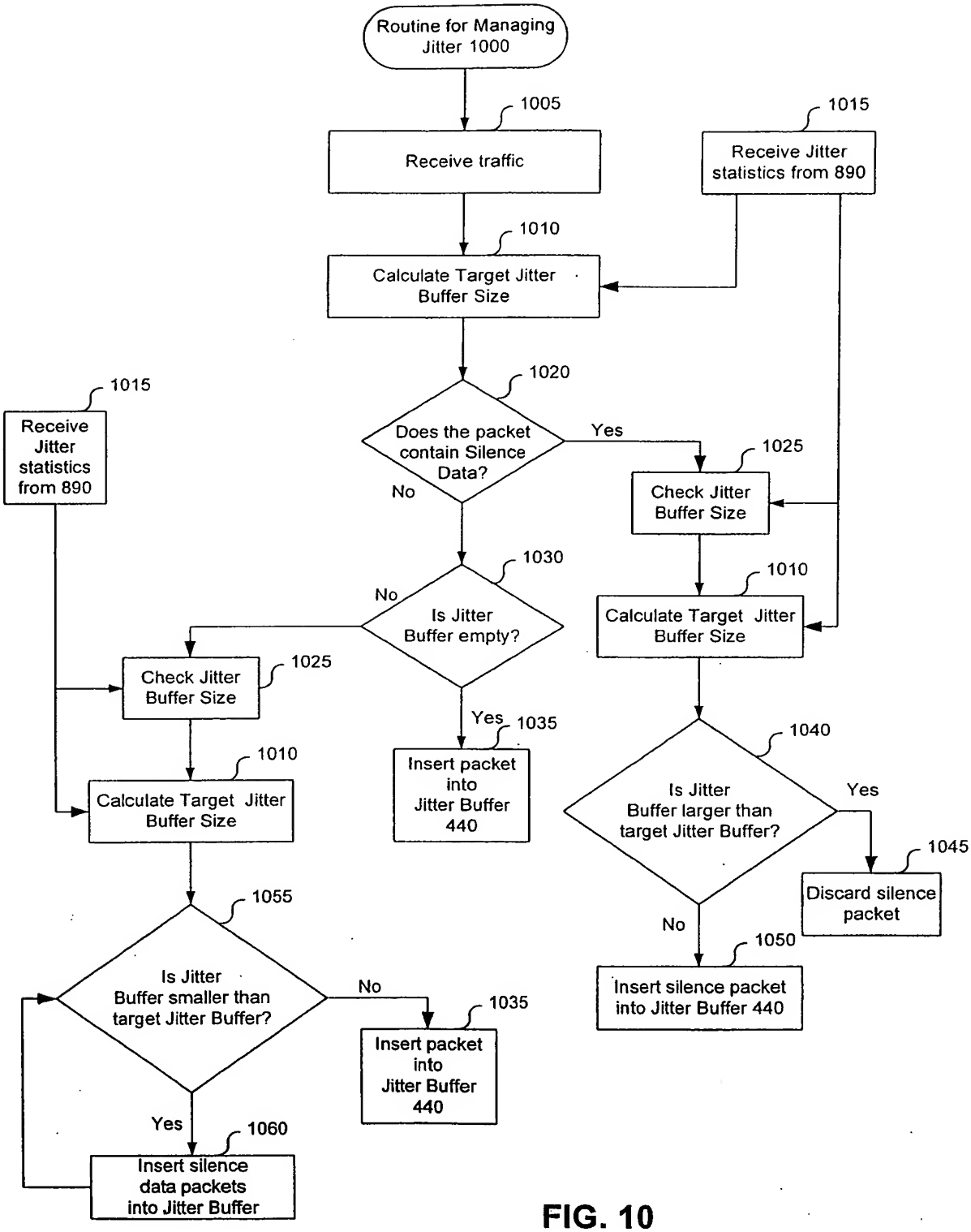
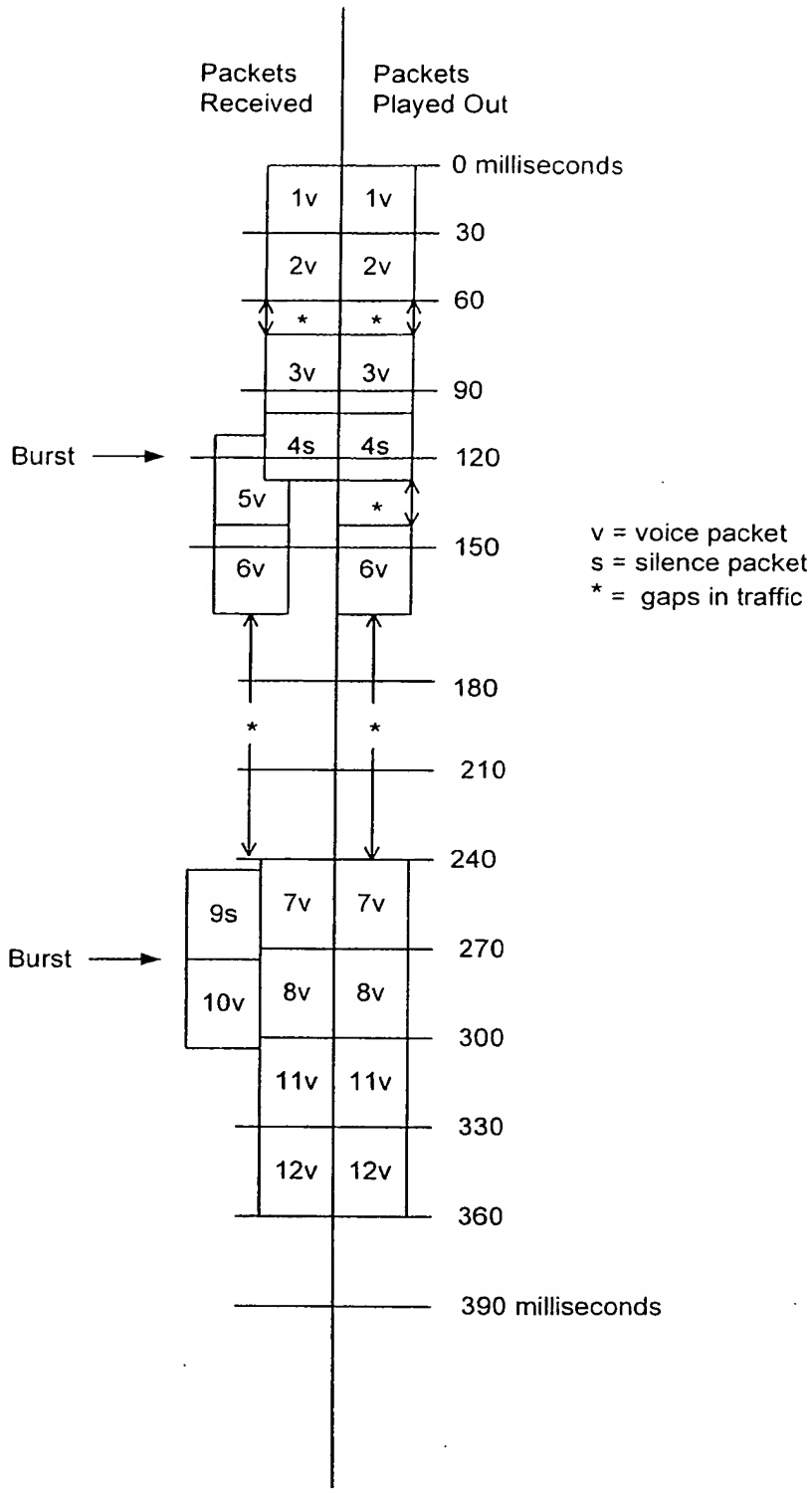


FIG. 10

9907-08.vsd/10



No Buffering of Jitter

FIG. 11

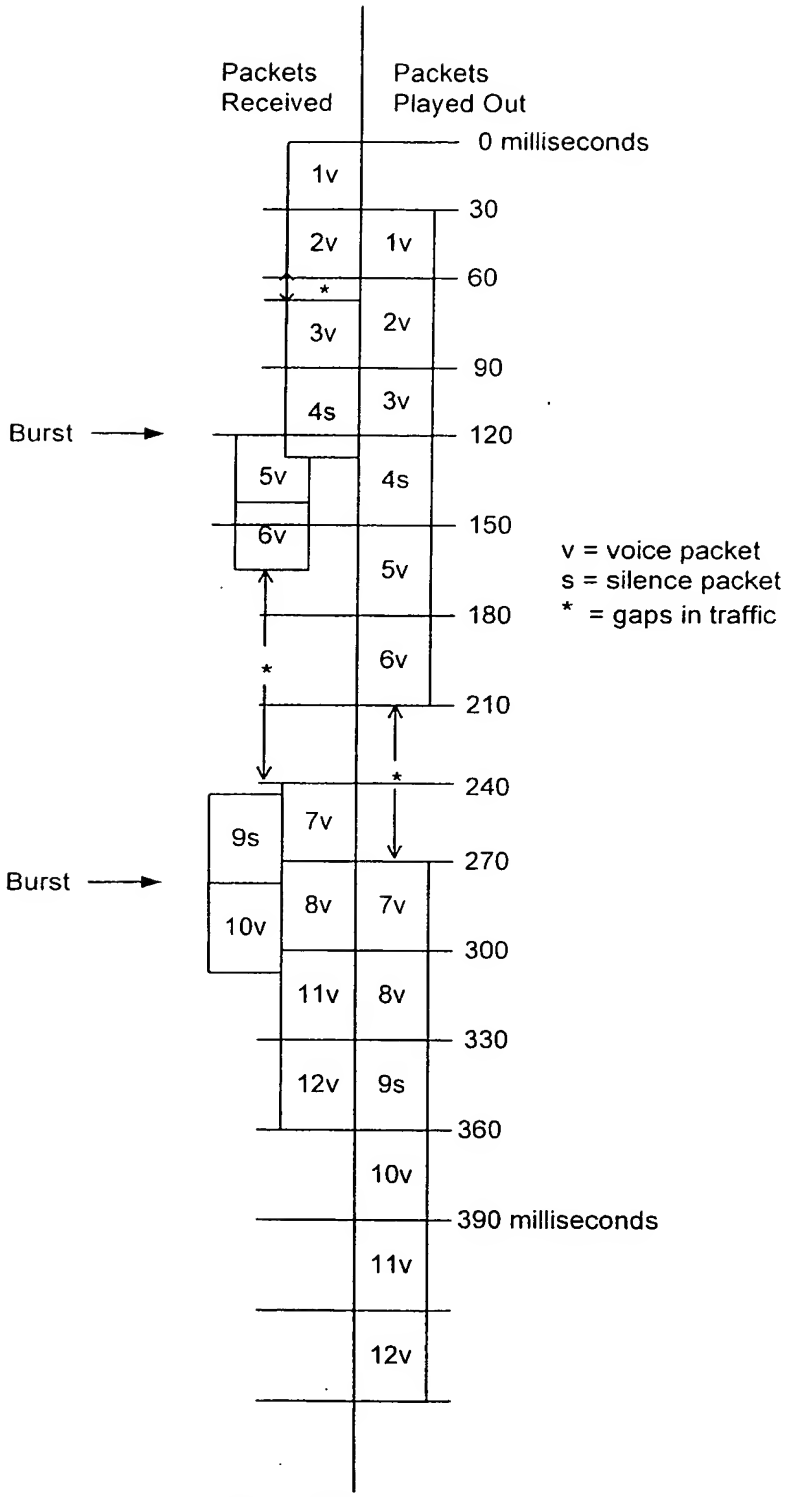
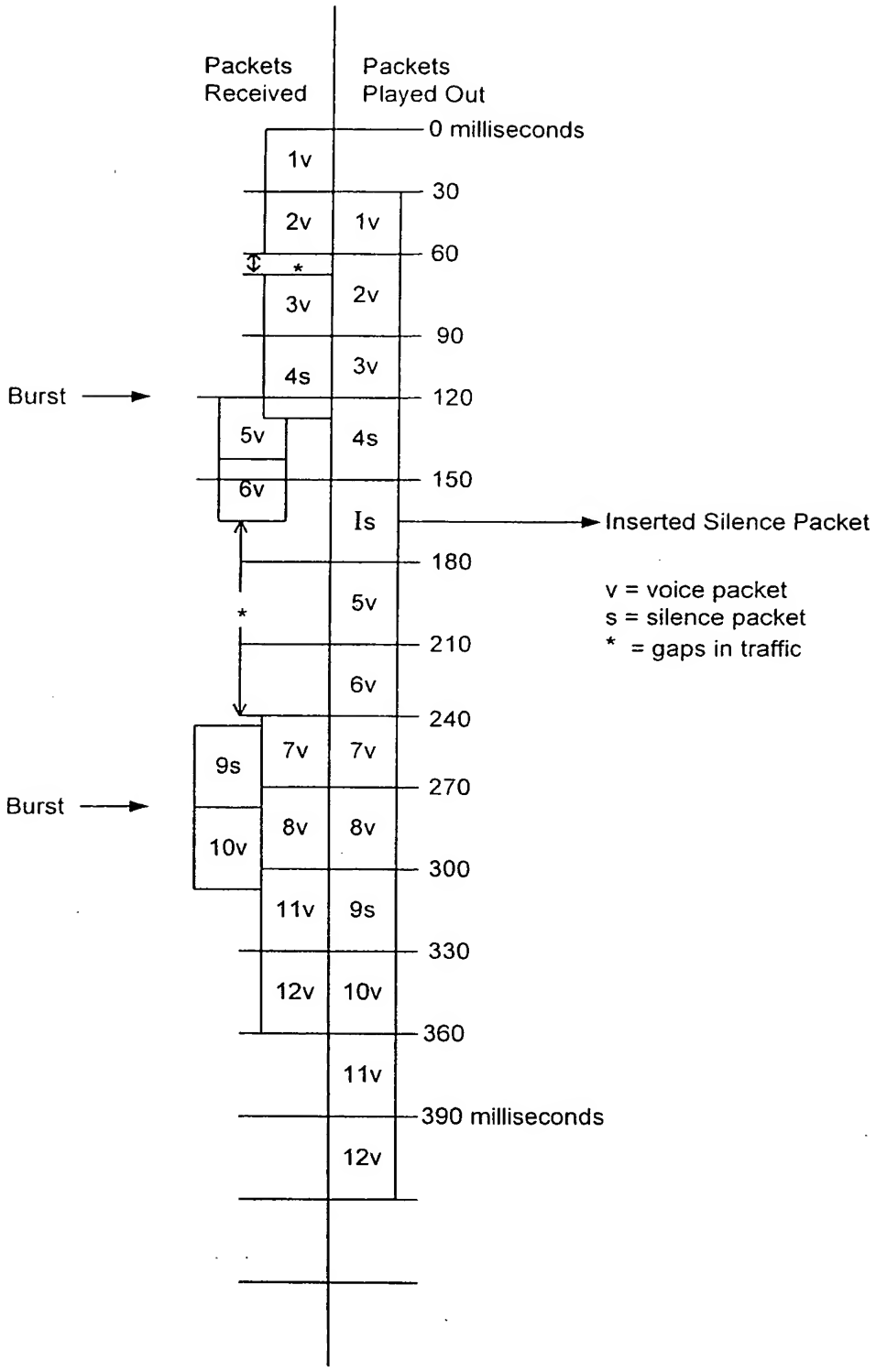

Packets Received
Packets Played Out
0 milliseconds
1v
30
2v
1v
60
*
3v
2v
90
4s
3v
Burst
120
5v
4s
6v
150
5v
v = voice packet
s = silence packet
* = gaps in traffic
180
6v
*
210
*
240
9s
7v
270
Burst
10v
8v
7v
300
11v
8v
330
12v
9s
360
10v
390 milliseconds
11v
12v
Static Buffering of Jitter

FIG. 12



Managed Buffering of Jitter

FIG. 13

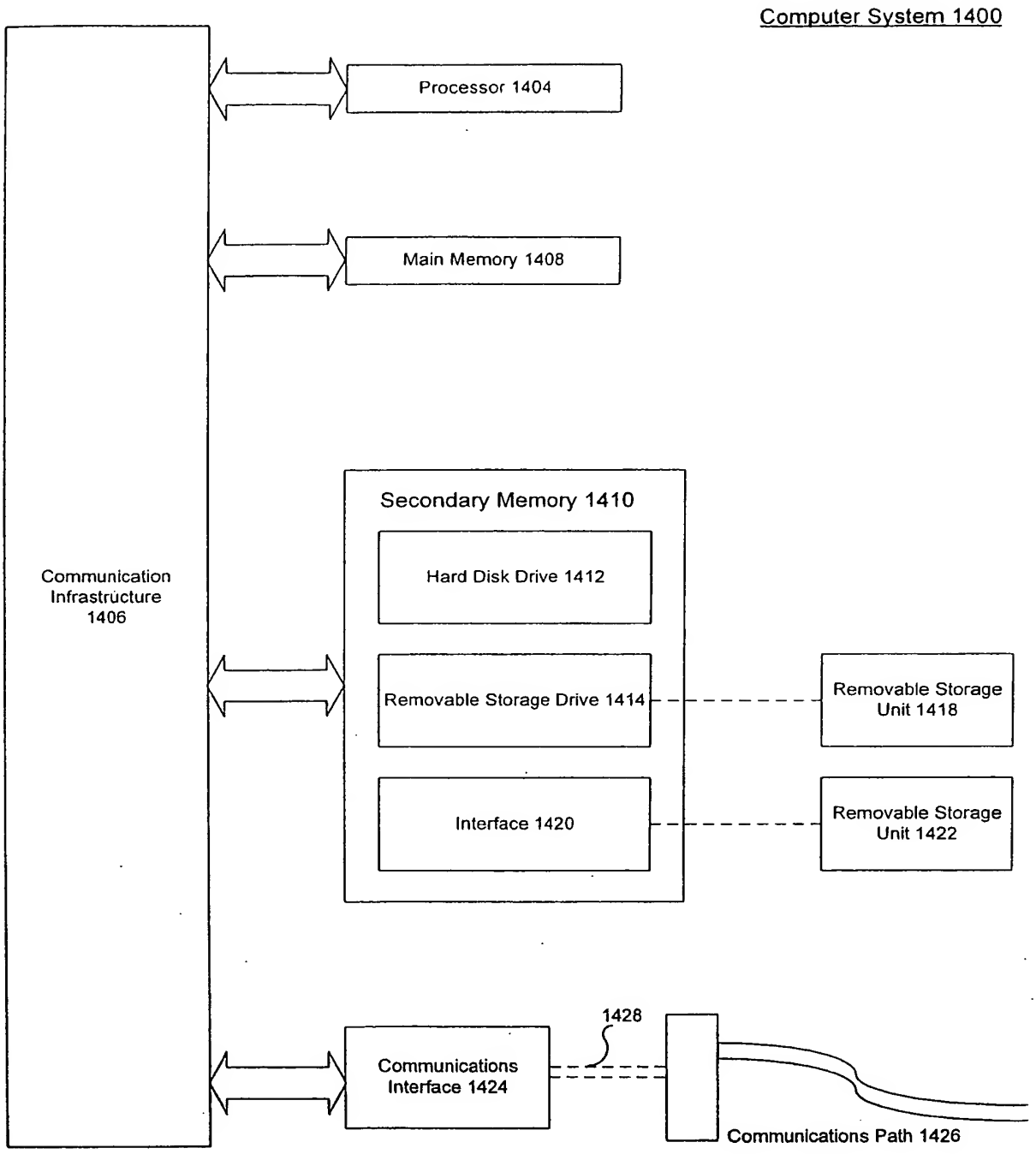


FIG. 14

9907-08.vsd/14